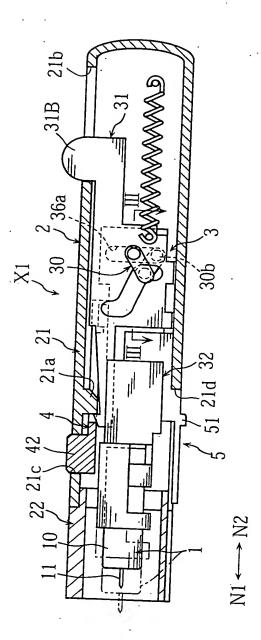
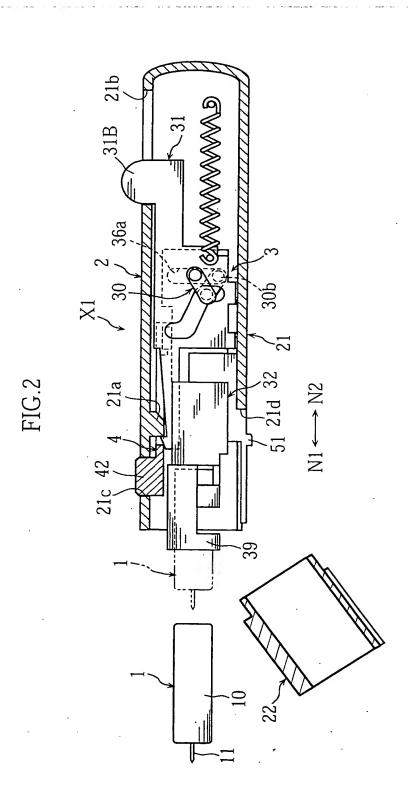
Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 1 of 29



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 2 of 29

10/552841



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 3 of 29

FIG.3

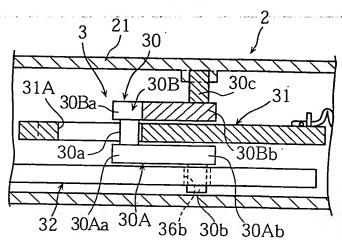


FIG.4

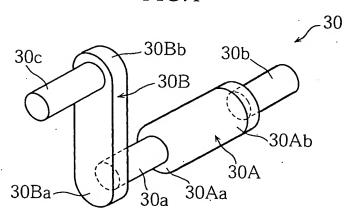
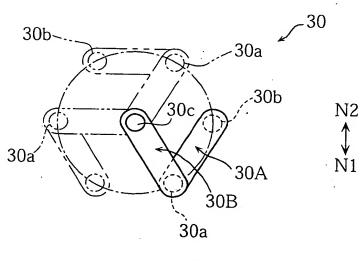
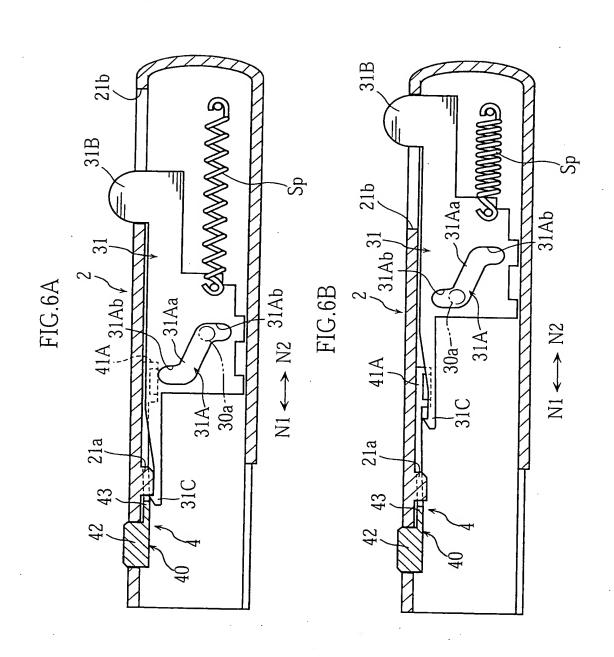


FIG.5



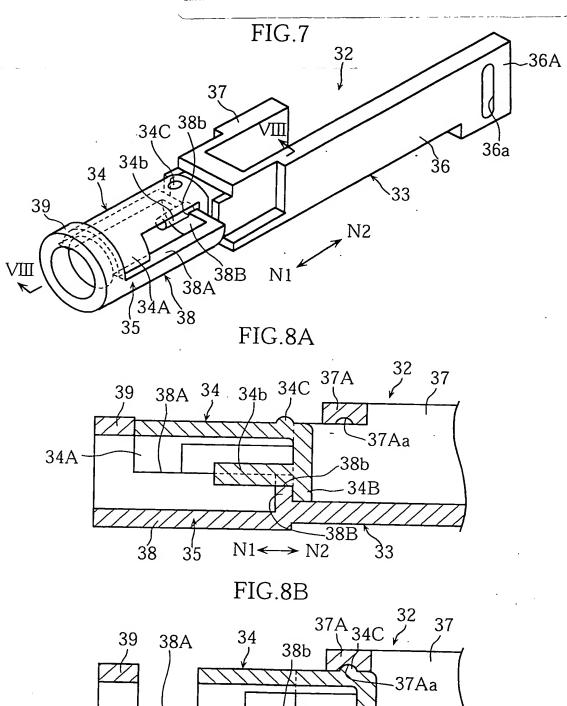
3/29

Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 4 of 29



Inventor: FUKUZAWA ET AL.
Docket No.: 10921,360USWO
Title: LANCING APPARATUS (AS AMENDED)'
Attorney Name: Douglas P. Mueller
Phone No.: 612.455,3804
Sheet 5 of 29

10/552841



 $N1 \leftrightarrow N2$

38B

35

34A

34B

33

Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 6 of 29

10/552841

FIG.9

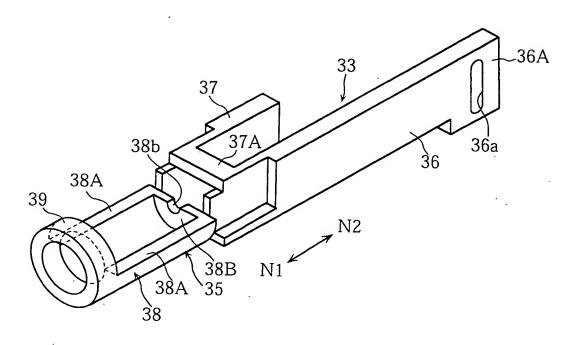
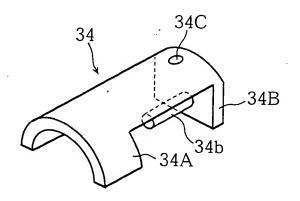


FIG.10



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 7 of 29

FIG.11

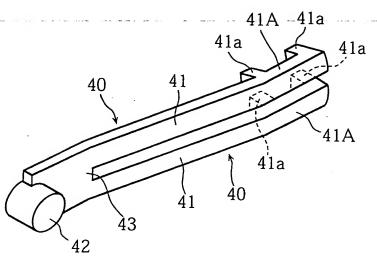
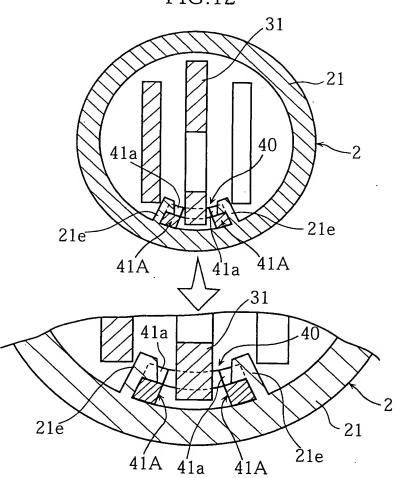
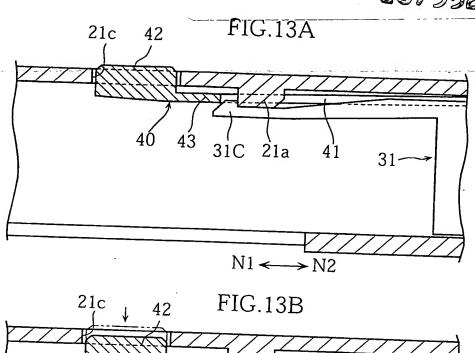
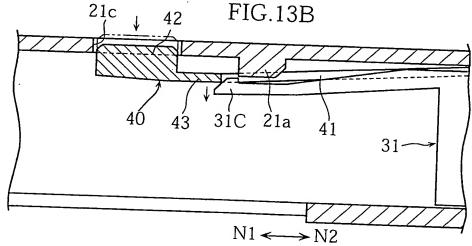


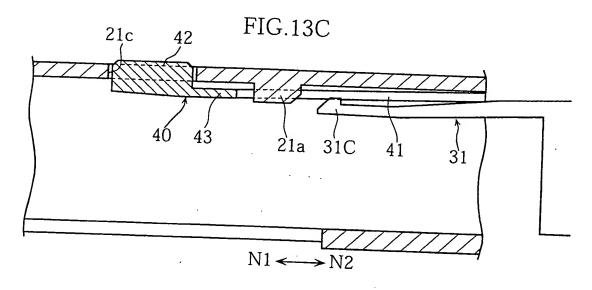
FIG.12



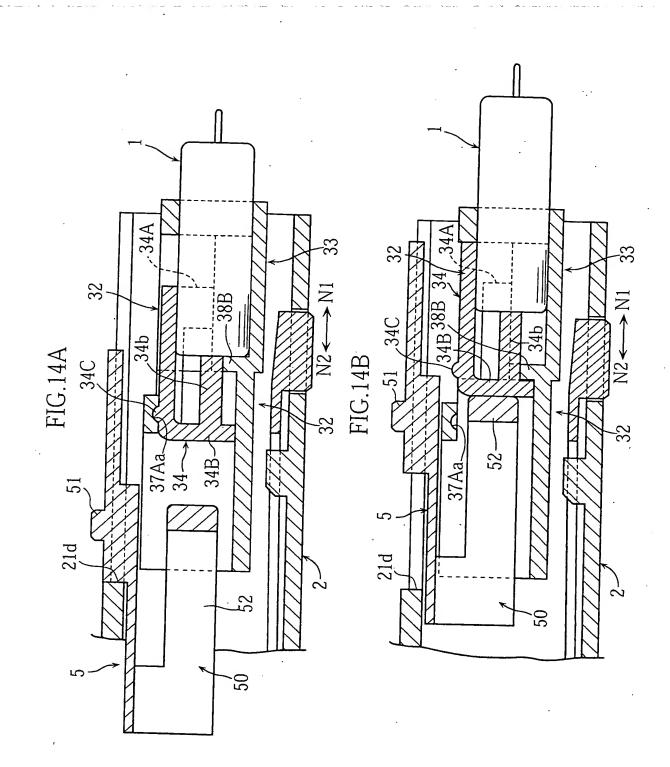
Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 8 of 29



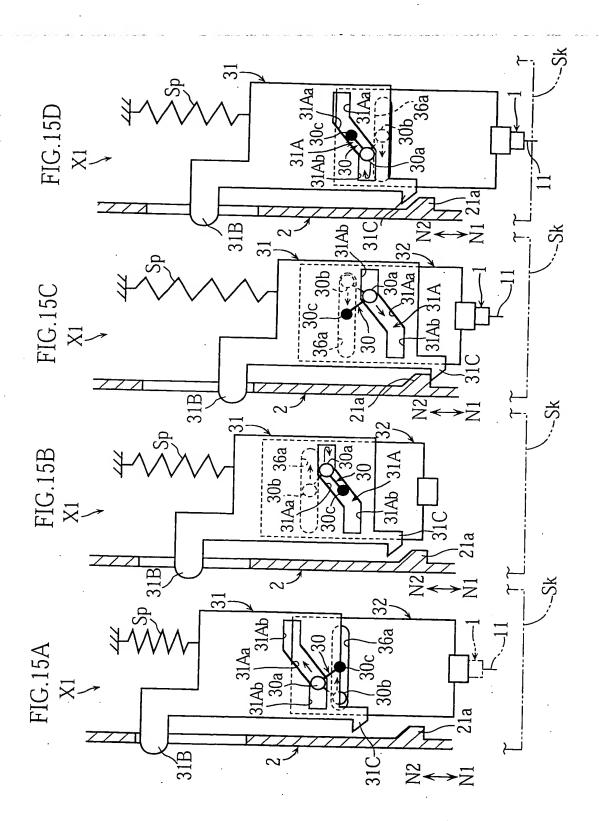




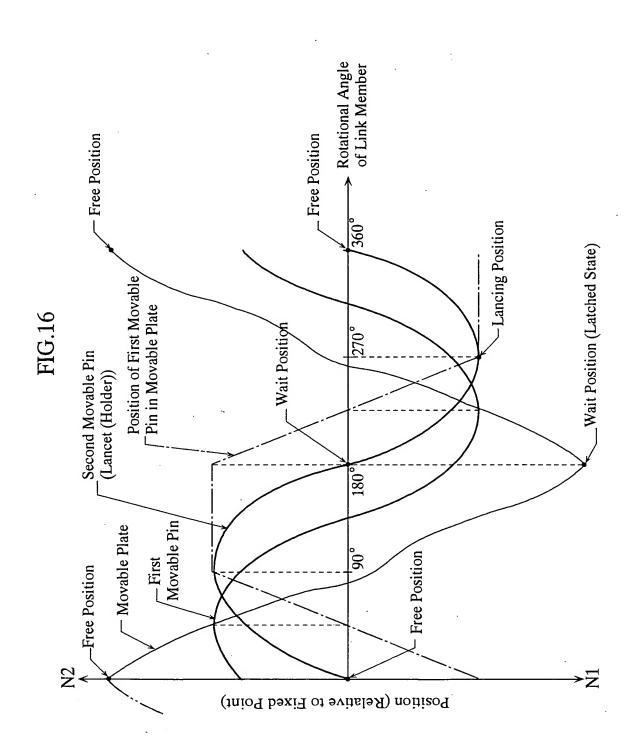
Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 9 of 29

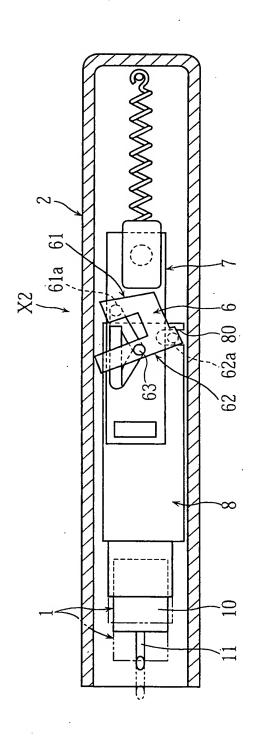


Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 10 of 29









Inventor: FUKUZAWA ET AL.

Docket No.: 10921.360USWO

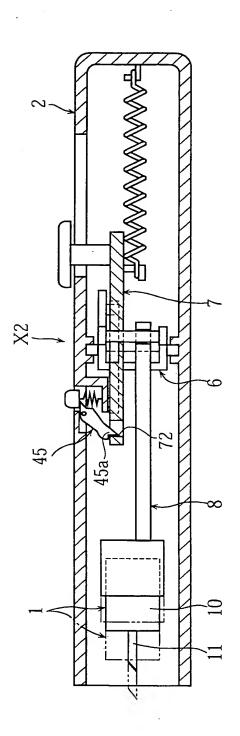
Title: LANCING APPARATUS (AS AMENDED)

Attorney Name: Douglas P. Mueller

Phone No.: 612.455.3804

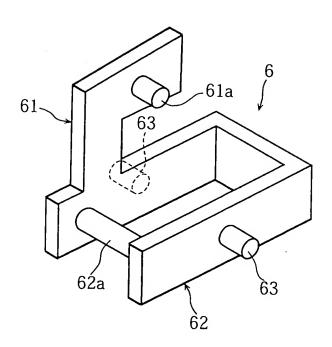
Sheet 13 of 29



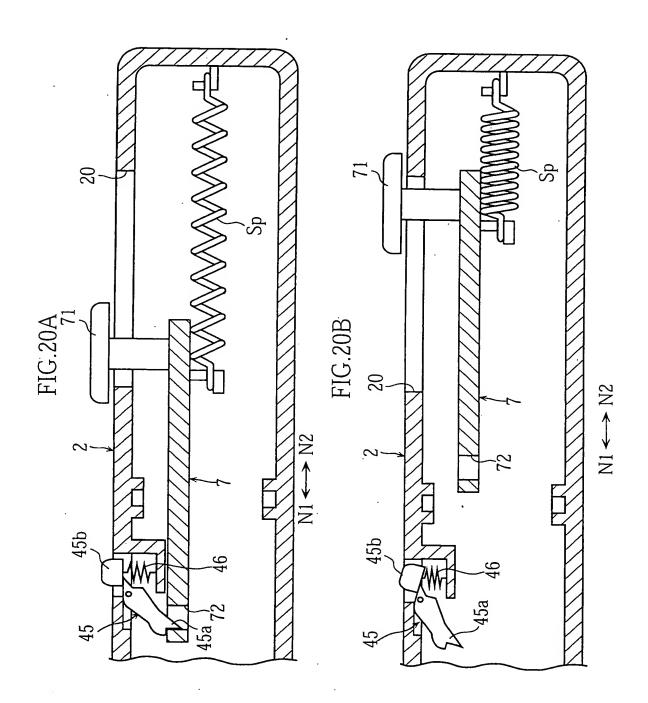


Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 14 of 29

FIG.19



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED) :
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 15 of 29



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 16 of 29

10/552841

FIG.21

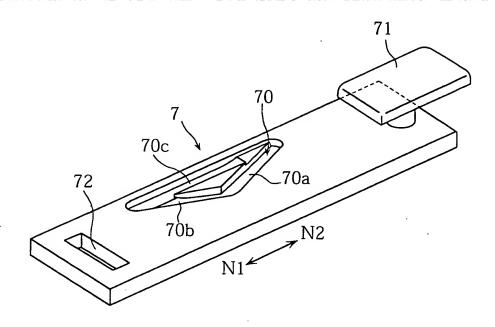
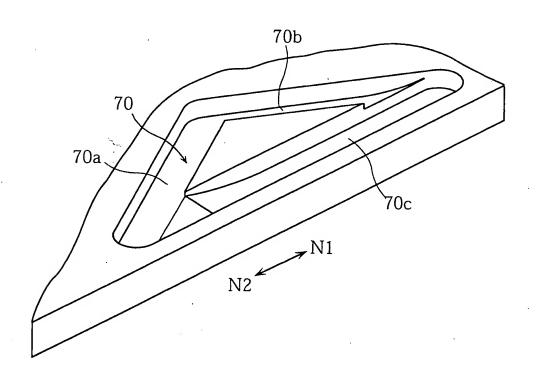
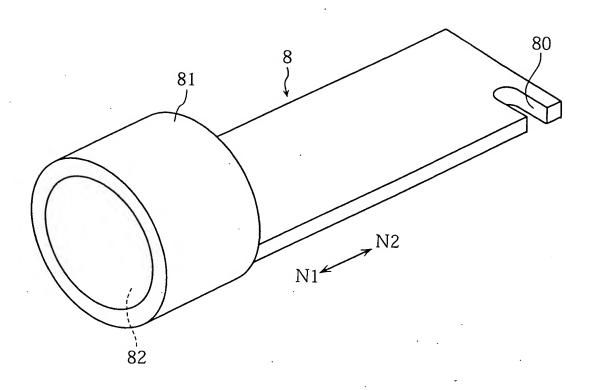


FIG.22

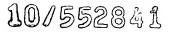


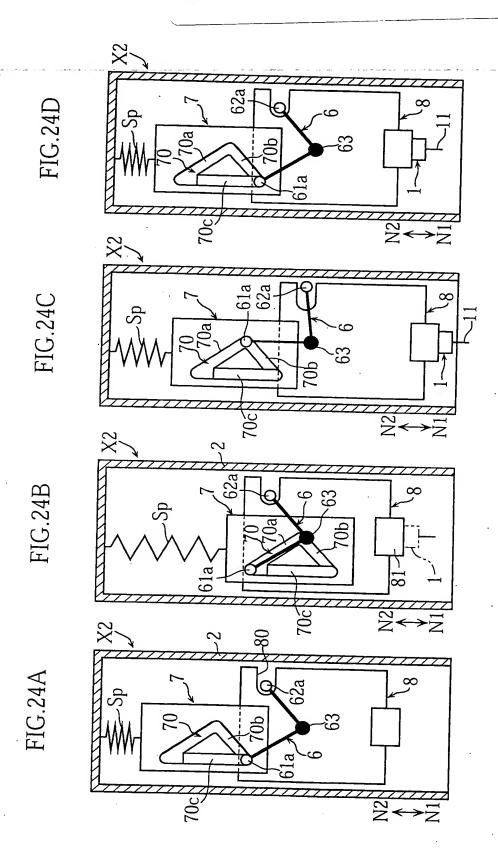
Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 17 of 29

FIG.23



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 18 of 29





18/29

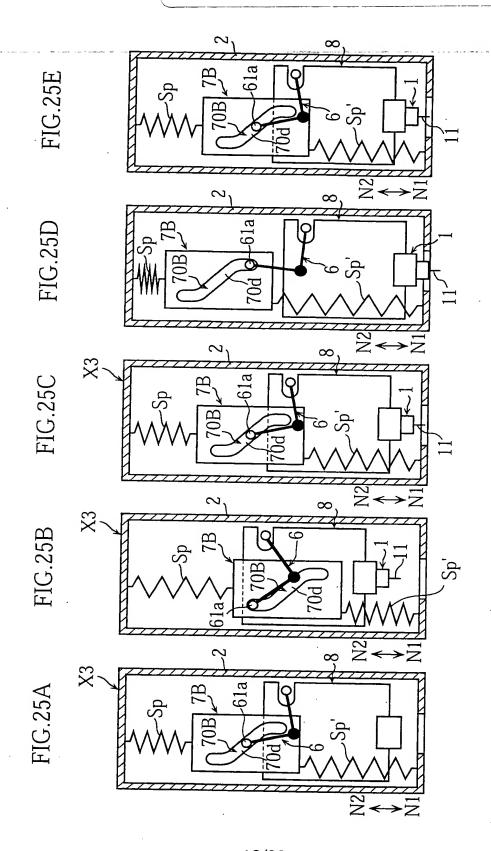
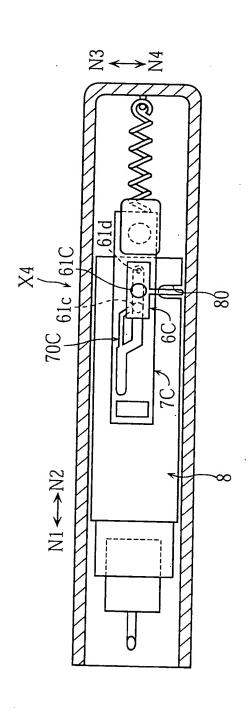


FIG.26



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 21 of 29

FIG.27

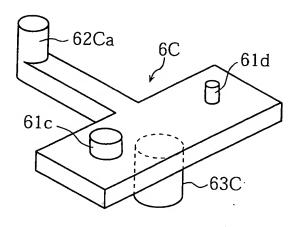
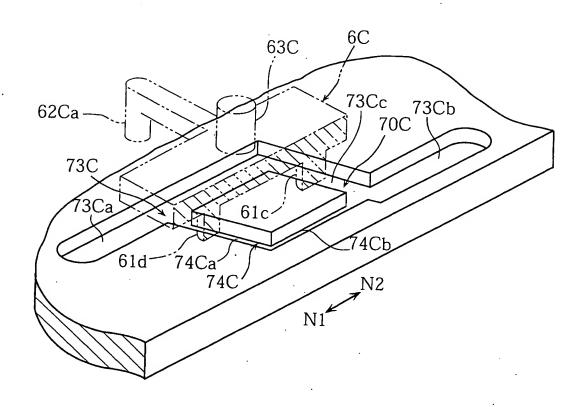
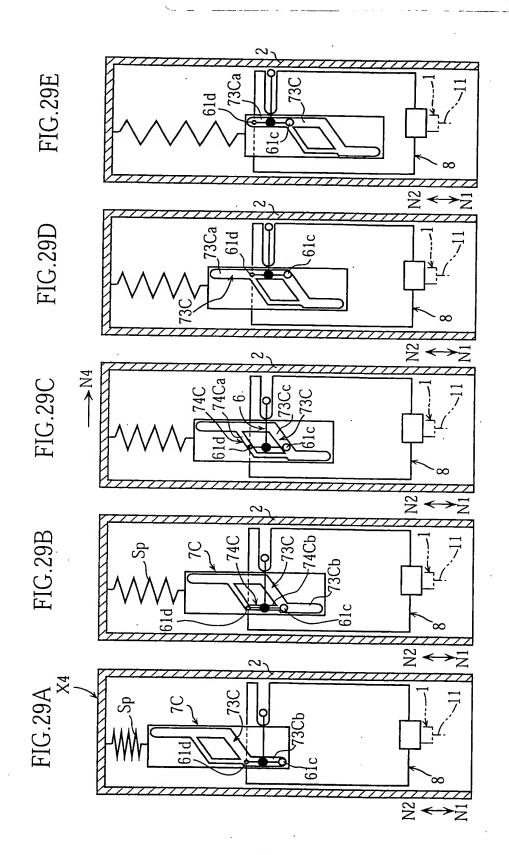


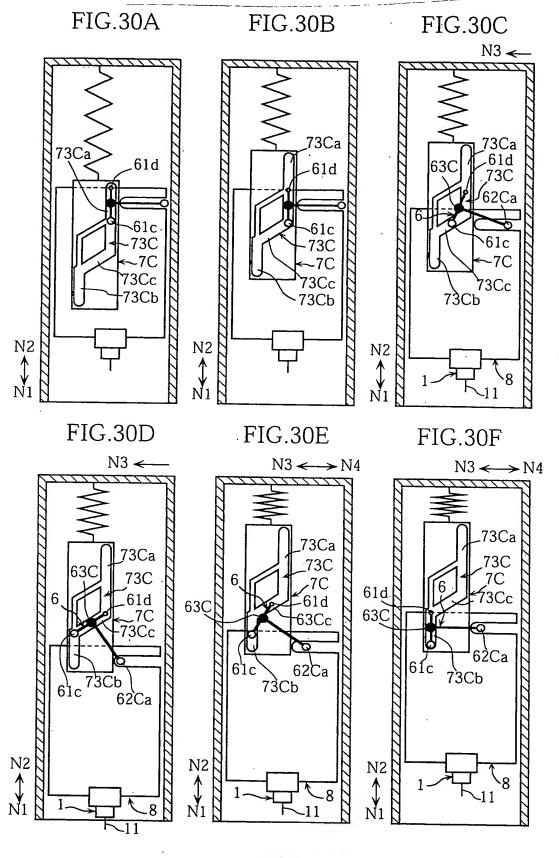
FIG.28



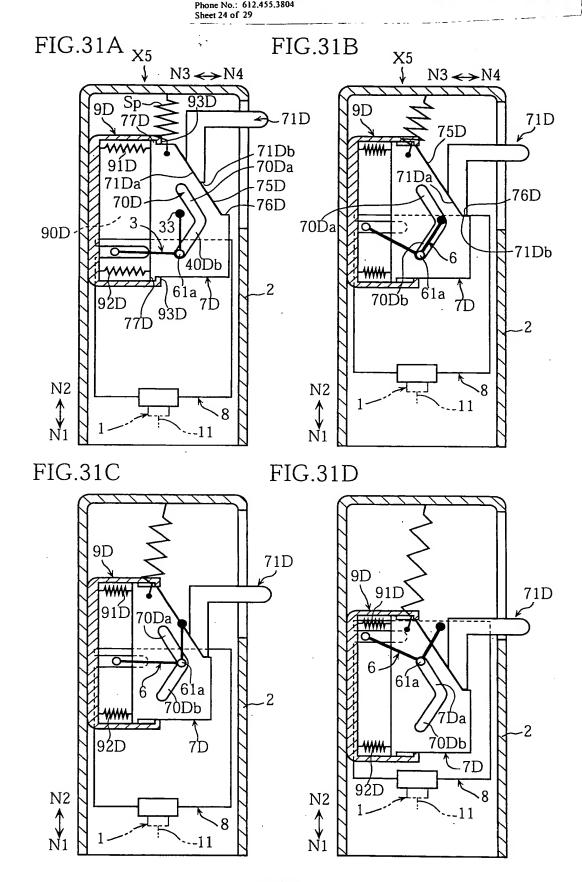
Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 22 of 29



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 23 of 29



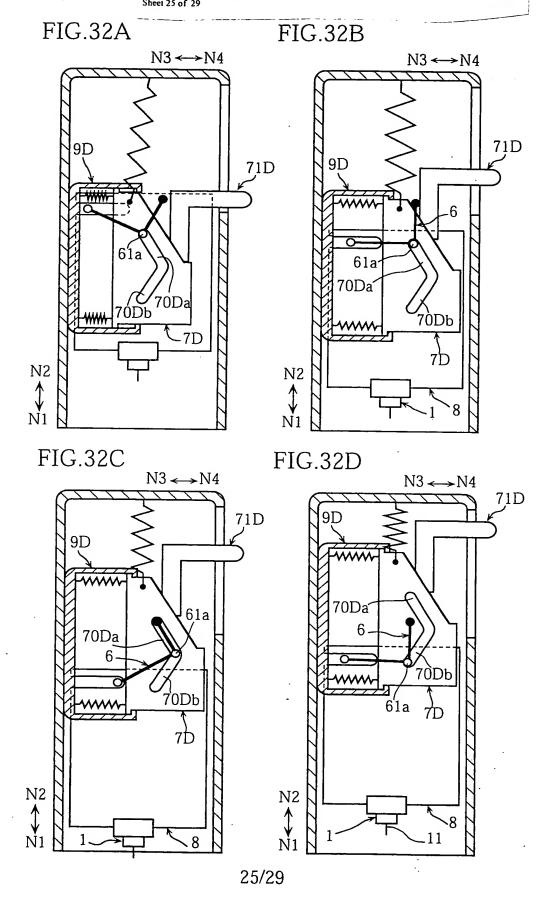
Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 24 of 29



24/29

Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 25 of 29

10/55284%



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 26 of 29

10/552841

FIG.33A PRIOR ART

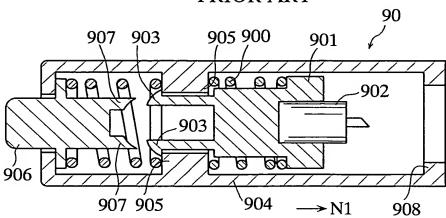


FIG.33B PRIOR ART

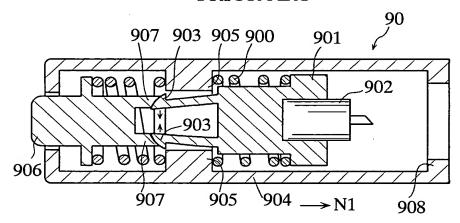
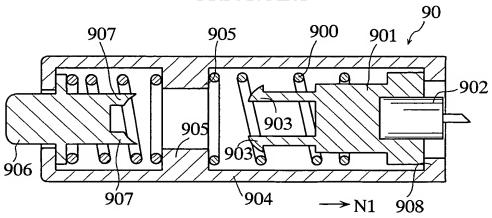


FIG.33C **PRIOR ART**



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804

Sheet 27 of 29

FIG.34A PRIOR ART

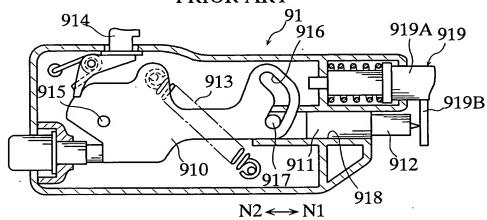
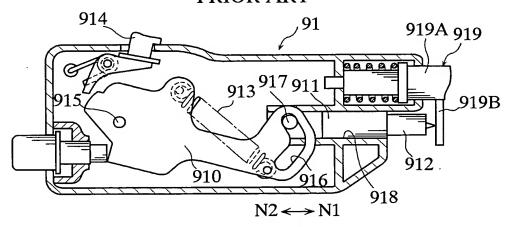


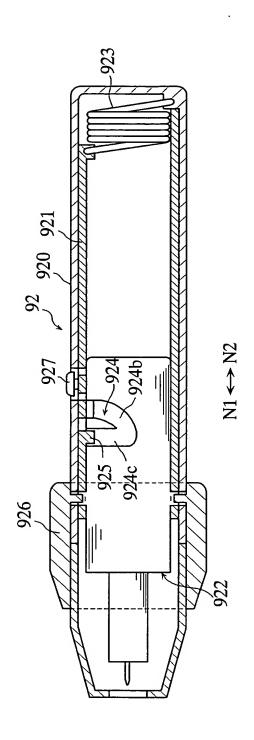
FIG.34B **PRIOR ART** 914 91 919A 919 GAAAA 916 911 913 919B Ø **9**12 910 917 918 $N2 \longleftrightarrow N1$

FIG.34C **PRIOR ART**



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 28 of 29

FIG.35 PRIOR ART



Inventor: FUKUZAWA ET AL.
Docket No.: 10921.360USWO
Title: LANCING APPARATUS (AS AMENDED)
Attorney Name: Douglas P. Mueller
Phone No.: 612.455.3804
Sheet 29 of 29-

FIG.36 PRIOR ART

